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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/886,027	06/22/2001	Satoshi Ueno	XA-9495	4780
181	7590	12/20/2004	EXAMINER	
MILES & STOCKBRIDGE PC 1751 PINNACLE DRIVE SUITE 500 MCLEAN, VA 22102-3833			VARTANIAN, HARRY	
			ART UNIT	PAPER NUMBER
			2634	

DATE MAILED: 12/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/886,027

Applicant(s)

UENO ET AL.

Examiner

Harry Vartanian

Art Unit

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– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 June 2001.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-3,5 and 10-11 is/are rejected.  
7) ☒ Claim(s) 4 and 6-9 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 22 June 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION*****Drawings***

1. The drawings are objected to because ***figure 10( c) is mislabeled as figure 10(b). Thus there are two figure 10(b)'s.*** Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Objections***

2. Claims 1-11 are objected to because of the following informalities:

There are a plurality of indefiniteness and antecedent basis problems in the claims.

In claim 1, the structure "a plurality of voltage-controlled oscillators" in lines 22-23 was already previously defined. It seems as though the limitation should read "[[a]]the plurality of voltage-controlled oscillators".

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In claim 2, the structure "a plurality of resonance type oscillators" in lines 22-23 was already previously defined. It seems as though the limitation should read "[[a]]**the** plurality of resonance type oscillators".

In claims 3-4, 6-7, and 11 the structure "a plurality of said resonance type oscillators" is improperly recited and lacks antecedent basis. It should read "[[a plurality of]] said **plurality of** resonance type oscillators".

In claims 4 and 7, "the power source voltage" lacks antecedent basis.

In claim 5, "the other resonance type oscillators" lacks antecedent basis.

In claim 6, please change the first limitation to "wherein a plurality of said resonance type oscillators respectively include transistors for a power source supply".

In claim 7, "said fuse circuit sets" lacks antecedent basis.

In claim 10, "the operation clock", "the clock inputted from the outside", and "the the frequency corresponding to the control voltage" all lack antecedent basis.

In claim 10 the structure "a plurality of said voltage-controlled oscillators" is improperly recited and lacks antecedent basis. It should read "[[a plurality of]] said **plurality of** voltage-controlled oscillators".

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Claims 8 and 9 are objected to for being dependent on an objected base claim.

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3, 5, and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Taketoshi et al(United States Patent# 5,389,898). Regarding Claim 1, Taketoshi et al's PLL with multiple selected VCO's meets the following limitations of the claim:

a voltage-controlled oscillator which oscillates in the frequency depending on an applied control voltage; and **abstract; (column 2, lines 5-18)**

a phase comparator which compares a phase of an oscillation output signal of said voltage-controlled oscillator with a phase of a predetermined frequency, **fig 1, item 1**

wherein said PLL circuit includes said voltage-controlled oscillator applied an output voltage of the circuit which outputs a voltage depending on a phase difference based on an output of said phase comparator and is capable of controlling oscillation frequency of said voltage controlled oscillator, **Abstract; (column 2, lines 5-18)**

wherein said semiconductor integrated circuit further comprising:

a plurality of voltage-controlled oscillators having different center frequencies of the frequency variable range to provide continuous or overlapped frequency variable range with each other; and **Abstract; (column 2, lines 5-54), fig 1, item 3**

selecting means to select one voltage-controlled oscillator to the fixed operation enabling condition from a plurality of voltage-controlled oscillators. **Abstract**

Regarding Claim 2, the rejection for claim 1 above meets all of the limitations of the claim, except the use of LC resonating circuits for the VCO's used in Taketoshi et al. However, applicant admits that the use of LC VCO circuits was well-known in the art at the time of the invention(Para 0003 of the application's PG-PUB 2002/0001361).

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Regarding Claim 3, Taketoshi et al meets the following limitations of the claim:

plurality of said resonance type oscillators provides the continuous or overlapped frequency variable range. (column 2, lines 38-54)

Regarding Claim 10, the rejection for claim 2 above meets all of the limitations of the claim.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Taketoshi et al(United States Patent# 5,389,898). Taketoshi et al discloses the invention in claim 11(see rejection for claim 2 above) including the use of a multiplexer to select one of the selected VCO's. Taketoshi et al does not disclose expressly the 2:1 to 2:1 multiplexer configuration claimed.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to use the 2:1 to 2:1 multiplexer configuration for selecting one of four VCO's. Applicant has not disclosed that this configuration provides an advantage, is

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used for a particular purpose, or solves a stated problem. It is an interchangeable design choice to one of ordinary skill in the art to pick either configuration. Therefore, it would have been obvious to one of ordinary skill in this art to modify Taketoshi et al to obtain the invention as specified in claim 11.

***Allowable Subject Matter***

5. Claims 4, and 6-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims ***-AND- the above objections are overcome.***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Harry Vartanian whose telephone number is 571.272.3048. The examiner can normally be reached on 10:00-6:30 Mondays to Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 571.272.3056. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

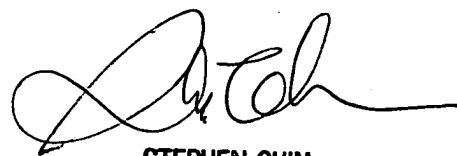
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Harry Vartanian  
Examiner  
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HV

A handwritten signature in black ink, appearing to read 'S. Chin', with a large loop at the beginning and a horizontal line extending to the right.

**STEPHEN CHIN**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2800**